

Component of Statistics Canada Catalogue no. 75-001-X  
Perspectives on Labour and Income

## Article

### Inside the labour market downturn

*by Jason Gilmore and Sébastien LaRochelle-Côté*

February 23, 2011



Statistics  
Canada

Statistique  
Canada

Canada

# PERSPECTIVES

ON LABOUR AND INCOME

## Standard symbols for Statistics Canada

---

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where a meaningful distinction exists between true zero and the value rounded
- P preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

# Inside the labour market downturn

Jason Gilmore and Sébastien LaRochelle-Côté

Many labour market reports focus on standard labour market measures, such as the number of employed persons, the number of jobs lost, and the unemployment rate. For example, LaRochelle-Côté and Gilmore (2009) reported that of the 400,000 drop in employment over the first 12 months of the downturn, much of the decrease was in manufacturing, construction, natural resources, transportation, and trades industries. Younger workers, men, and individuals with lower educational attainment experienced disproportionate job losses. The unemployment rate, the most common measure of labour market slack, increased to a peak of 8.7% in August 2009 and subsequently declined to reach 7.6% in December 2010.

While employment and unemployment trends are the main labour market indicators, subpopulations, like involuntary part-timers, provide further information about the state of the labour market. Moreover, the numbers of those not participating in the labour force (or 'non-participants') can vary considerably with economic conditions (Statistics Canada 1999 and Hipple 2010). As such, a broader slate of labour market indicators can provide a more complete picture of how labour supply and demand adjust to economic events.

This article examines recent changes within the employed, unemployed, and not-in-the-labour-force populations, and investigates whether some subcategories contributed more to the changes within each group. It also examines, where possible, how these changes compared to those which occurred during the downturns of the early 1980s and early 1990s. Finally, the paper discusses alternative measures of unemployment that include some of these subcategories in the calcula-

---

Jason Gilmore and Sébastien LaRochelle-Côté are with the Labour Statistics Division. Jason Gilmore can be reached at 613-951-7118 or [jason.gilmore@statcan.gc.ca](mailto:jason.gilmore@statcan.gc.ca). Sébastien LaRochelle-Côté can be reached at 613-951-0803 or [sebastien.larochelle-cote@statcan.gc.ca](mailto:sebastien.larochelle-cote@statcan.gc.ca).

## Data source and definitions

This study uses data from the monthly Labour Force Survey (LFS). The LFS collects information on the labour market activities of the population age 15 years and over, excluding residents of collective dwellings and aboriginal settlements, and full-time members of the Canadian Forces. Employed individuals are defined as those who worked at a job or business during the reference week of the survey.

In the LFS, seasonally adjusted information is available for major indicators, but not for a number of detailed demographic and job characteristics. These characteristics must therefore be examined on a year-over-year (unadjusted) basis. Since employment began to drop in November 2008, the period from October 2008 to October 2010 represents an opportunity to study the evolution of the non-working population through decline and recovery. Unless otherwise stated, the data in this paper are not seasonally adjusted.

In the LFS, the working-age population (15 years and over) is divided into three categories: the employed, who were working either as paid employees or in self-employment during the survey reference week; the unemployed, or those who were actively looking for a job during the reference week; and individuals not in the labour force—those who were not actively looking for work (for instance because they were retired or students, or staying at home). However, some of these people could have been available for work even though they did not search for work during the survey reference week. Discouraged workers, for example, fall into this category and are therefore not counted as unemployed.

tions. The article covers the period from October 2008, just prior to the employment downturn, to October 2010 (see *Data source and definitions*).

## Working or not?

In October 2008, the working-age population was 27 million (Table 1). Of these, 17.2 million were employed—an employment rate of 64%. With 1.1 million unemployed, the labour force numbered 18.3 million and the unemployment rate was 6.1%. Another

8.7 million were not participating in the labour force, just under one-third of the working-age population.

As has been well-documented, employment declined in the first year of the downturn and then recovered during the second year, for little net change over the entire period. At the same time, unemployment increased by 341,000 (or 31%), while the number of non-participants increased by 458,000 (5%). Because employment declined over the period (by 66,000), the unemployed and not-in-the-labour-force components entirely accounted for the increase of 733,000 in the working-age population between October 2008 and October 2010.

### Three downturns, three stories

The recent labour market downturn has taken a much different course than the downturns of the early 1980s and early 1990s. However, each of the earlier downturns also had its own unique profile.

The downturn of the early 1980s was characterized by the greatest drop in employment (Chart A). After the employment peak in June 1981, employment fell sharply and was still 5% below the peak 19 months later. Employment finally recovered to its pre-recession level 40 months after the beginning of the downturn.

In the early 1990s, employment did not initially decline as steeply as in the early 1980s, but took longer to recover. In the first 12 months of the downturn, employment declined by about 2%, remained stable for a while, and fell again to a new low in August 1992. The labour market then picked up and

**Table 1 Employed, unemployed, and individuals not in the labour force**

	October 2008	October 2009	October 2010	Change from October 2008 to October 2010	
		'000		'000	%
<b>Total population</b>	<b>27,032</b>	<b>27,418</b>	<b>27,765</b>	<b>733</b>	<b>2.7</b>
Employed	17,175	16,804	17,109	-66	-0.4
Unemployed	1,114	1,517	1,455	341	30.7
Not in the labour force	8,743	9,097	9,201	458	5.2

Source: Statistics Canada, Labour Force Survey, seasonally adjusted data.

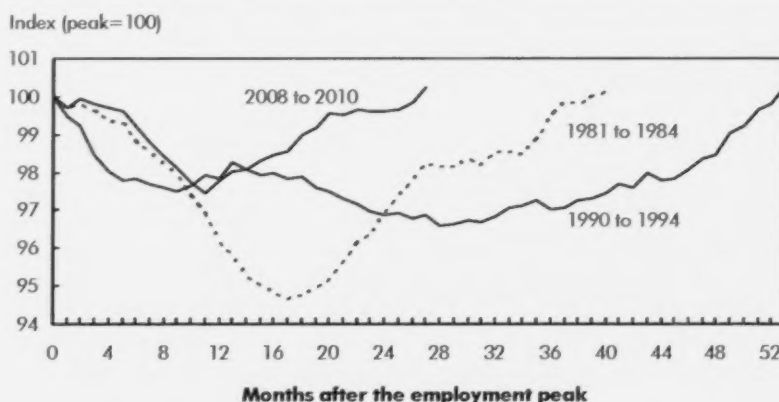
surpassed the employment levels of its previous peak 53 months after the initial downturn.

In the recent downturn, employment fell faster in the first few months than in the 1980s and 1990s, but recovered quicker. This time, employment took 27 months to fully recover to its October 2008 level. The state of the labour market was therefore quite different in

the two years that followed the onset of the previous two downturns.

The number of unemployed persons and non-participants also differed across the downturns (Table 2). Two years after the beginning of the 1980s and 1990s downturns, the total 'not employed' population (comprising the unemployed and those not in

**Chart A Index of employment during the last 3 downturns**



Source: Statistics Canada, Labour Force Survey, seasonally adjusted data.

the labour force) was up by more than 12%, compared to 8% during the recent downturn. Two years into the recent downturn and into the 1990s downturn, the increase in the number of individuals without a job was almost evenly divided between the unemployed and those not in the labour force. In the early 1980s, unemployment was the main driving force behind the increase in the number of individuals without a job.

### The unemployed

Between October 2008 and October 2010, the unemployed population increased by more than 30%. However, not all the unemployed were necessarily looking for a job because they had been laid-off. Quits, new entrants or re-entrants, and future starts<sup>1</sup> can also represent a sizeable portion of the unemployed. Some quit their jobs in anticipation of a better one, others enter the labour market after completing school, and others might come back to the labour market after spending time off with their families. Unemployment is therefore not predominantly the result of layoffs, even during downturns.

Examples of these lesser-known categories of the unemployed are 'new entrants' and 're-entrants,' who typically represent about 45% of the unemployed (Table 3). New entrants have no previous work experience and are predominantly younger individuals.<sup>2</sup> Re-entrants have some work experience and are re-entering the labour force from non-participation. Over the period, new entrants and re-entrants increased by about 33%, accounting for nearly one-half of the increase in unemployment (48%). Interestingly, more than 50% of the increase in new entrants and re-entrants was among those reporting that they

were "maintaining a home" prior to entering the labour force. New entrants and re-entrants are usually more likely to report that they were going to school.

Quits—individuals voluntarily leaving their jobs—represented another 12% of the unemployed at the beginning of the recent downturn, falling to 9% two years later. Quits tend to be pro-cyclical: the quit rate increases when job opportunities abound and it decreases in downturns.

Among those who were not looking for work, future starts increased little over the period (2%). Temporary layoffs<sup>3</sup> increased by 14%, still less than one-half the rate of increase in total unemployment (30%). As a result, these two categories represented an even smaller portion of the unemployed at the end of the period than at the beginning.

Two other categories more closely related to prevailing economic conditions are those who *lost* their jobs as a result of a permanent layoff, and those who had been out of work for more than one year (reason unknown).<sup>4</sup> Two years after the onset of the recent downturn, the number of permanent layoffs increased at the same pace as unemployment as a whole (30%), while the number of people for whom the reason was not known increased by 74%. Together, these two categories accounted for nearly 50% of the increase in the number of the unemployed over the two years (the other half was due to new entrants and re-entrants). During the first two years of the two earlier downturns, however, the number of permanent layoffs and the number of individuals who had been out of work for at least one year (reason unknown) increased much faster (Table 4). Permanent layoffs, for instance, increased by 57% in the early 1990s and by 116% in the early 1980s—compared to

**Table 2 Comparisons with changes in earlier downturns, 2 years after the employment peak**

	October 2008 to October 2010		April 1990 to April 1992		June 1981 to June 1983	
	'000	%	'000	%	'000	%
<b>Total population</b>	<b>733.4</b>	<b>2.7</b>	<b>616.3</b>	<b>2.9</b>	<b>540.4</b>	<b>2.9</b>
Total employed	-66.4	-0.4	-410.4	-3.1	-354.2	-3.1
Total not employed	799.9	8.1	1,026.7	12.8	894.6	12.0
Unemployed	341.4	30.7	453.2	42.1	669.4	75.4
Not in the labour force	458.4	5.2	573.5	8.3	225.2	3.4

Source: Statistics Canada, Labour Force Survey, seasonally adjusted data.

**Table 3 Categories of unemployed**

	October 2008	October 2010	Change		October 2008	October 2010	Change
	'000	'000	'000	%	% distribution		
<b>All unemployed</b>	<b>1,024.1</b>	<b>1,331.7</b>	<b>307.6</b>	<b>30.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Job searchers	946.3	1,246.6	300.3	31.7	92.4	93.6	97.6
Quits	120.3	121.3	1.0	0.8	11.7	9.1	0.3
Permanent layoffs	287.3	373.7	86.4	30.1	28.1	28.1	28.1
Reason unknown <sup>1</sup>	84.9	148.0	63.1	74.3	8.3	11.1	20.5
New and re-entrants	453.7	603.5	149.8	33.0	44.3	45.3	48.7
Temporary layoffs	46.2	52.8	6.6	14.3	4.5	4.0	2.1
Future starts	31.7	32.2	0.5	1.6	3.1	2.4	0.2

1. Last worked more than 1 year ago.

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

30% during the late 2000s. Hence, these two categories accounted for a much larger portion of the overall increase in the total unemployed population (more than 75%) in the 1980s and 1990s.

Overall, the unemployment rate increased faster during the two previous downturns. In seasonally adjusted terms, the unemployment rate increased from 6.1% to 7.8% between October 2008 and October 2010. Between April 1990 and April 1992, the unemployment rate increased from 7.6% to 10.7%; during the 1980s downturn, it rose from 7.2% to 12.4%.

### Long-term unemployment

Some of those who lost their jobs in the immediate aftermath of the downturn might still be without a job, despite the employment growth from mid-2009 to mid-2010. Such long-term unemployment can impair an individual's ability to find a job when the economy improves (Blanchard and Diamond 1994, Jackman and Layard 1991, and Corak 1993)—it can also affect stress levels and psychological well-being (Clark and Oswald 1994, and Clark 2006), and household finances often deteriorate, especially for those who exhaust their employment insurance benefits (Micklewright and Nagy 1999).

**Table 4 Change in categories of unemployed**

	October 2008 to October 2010		April 1990 to April 1992		June 1981 to June 1983	
	'000	%	'000	%	'000	%
<b>All unemployed</b>	<b>307.6</b>	<b>30.0</b>	<b>475.8</b>	<b>42.8</b>	<b>645.9</b>	<b>73.3</b>
Job searchers	300.3	31.7	463.1	46.5	634.0	81.1
Quits	1.0	0.8	-15.3	-9.2	1.5	1.2
Permanent layoffs	86.4	30.1	274.5	57.3	331.9	115.8
Reason unknown <sup>1</sup>	63.1	74.3	109.5	142.0	143.1	265.0
New and re-entrants	149.8	33.0	94.4	34.6	157.4	50.2
Temporary layoffs	6.6	14.3	22.7	31.1	19.0	38.8
Future starts	0.5	1.6	-10.0	-22.8	-7.1	-14.1

1. Last worked more than 1 year ago.

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.



**Table 5 Unemployment duration measures**

	October 2008	October 2010	Change		October 2008	October 2010	Change
	'000	'000	'000	%	% distribution		
<b>All unemployed</b>	<b>1,024.1</b>	<b>1,331.7</b>	<b>307.6</b>	<b>30.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
1 to 4 weeks	425.8	455.3	29.5	6.9	41.6	34.2	9.6
5 to 25 weeks	414.5	541.6	127.1	30.7	40.5	40.7	41.3
26 to 51 weeks	72.4	146.5	74.1	102.3	7.1	11.0	24.1
52 weeks or more	79.8	156.1	76.3	95.6	7.8	11.7	24.8
Duration unknown <sup>1</sup>	31.7	32.2	0.5	1.6	3.1	2.4	0.2

1. Duration is unknown for unemployed future starts (i.e., job begins within 4 weeks).

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

The Labour Force Survey collects information on the duration of joblessness for those who are currently unemployed and do not have a job that starts in the next four weeks. In October 2008, more than 80% of the unemployed had been without a job for 25 weeks or less—and more than 40% had been without a job for less than one month (Table 5). Only 15% had been without a job for at least 26 weeks.

The number of those who had been without a job for at least 52 weeks doubled during the two years. Together with those who had been without a job for at least 26 weeks, these workers represented almost 1 in 4 unemployed persons in October 2010.<sup>5</sup>

Long-term unemployment also rose during the first two years of the two previous downturns (Table 6). In 1990–1992, the number of individuals who had

been unemployed for 52 weeks or more increased by 146%, and that number almost quadrupled during the downturn of the early 1980s. However, the share of the total unemployment increase that could be attributed to the long-term unemployed was about the same in all three downturns.

Some complementary measures to the unemployment rate that focus on long-term unemployment (Devereaux 1992 and Statistics Canada 1999) have been developed. The first of these rates, R1, includes only those who have been unemployed for at least one year. The second, R2, includes those who have been unemployed for at least three months. Both are meant to provide an indication of the economic hardship of long-term unemployment.

**Table 6 Change in unemployment duration measures**

	October 2008 to October 2010		April 1990 to April 1992		June 1981 to June 1983	
	'000	%	'000	%	'000	%
<b>All unemployed</b>	<b>307.6</b>	<b>30.0</b>	<b>475.8</b>	<b>42.8</b>	<b>645.9</b>	<b>73.3</b>
1 to 4 weeks	29.5	6.9	22.0	7.2	42.2	13.7
5 to 25 weeks	127.1	30.7	193.9	37.1	254.8	70.7
26 to 51 weeks	74.1	102.3	146.1	94.6	212.1	195.8
52 weeks or more	76.3	95.6	123.8	145.8	143.9	268.5
Duration unknown <sup>1</sup>	0.5	1.6	-10.0	-22.8	-7.1	-14.1

1. Duration is unknown for unemployed future starts (i.e., job begins within 4 weeks).

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

**Table 7 Alternative measures of unemployment: Long-term unemployed**

	October 2008	October 2009	October 2010	Change from October 2008 to October 2010
	'000			
<b>Number</b>				
Standard unemployment level (R4)	1,024.1	1,387.6	1,331.7	307.6
Out of work for at least 1 year (R1)	79.7	135.6	156.1	76.4
Out of work for at least 3 months (R2)	299.5	548.2	472.4	172.9
	%			
<b>Rate</b>				
Standard unemployment level (R4)	5.6	7.6	7.2	1.6
Out of work for at least 1 year (R1)	0.4	0.7	0.8	0.4
Out of work for at least 3 months (R2)	1.6	3.0	2.6	1.0

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

In October 2008, when the unemployment rate was at a historically low level, the long-term unemployment rate (R1) was 0.4% (Table 7). One year later, R1 had risen to 0.7%. Although the labour market continued to improve from October 2009 to October 2010, R1 continued rising to 0.8%. The R2 rate, meanwhile, rose from 1.6% in October 2008 to 3.0% one year later. By October 2010, it had eased slightly, to 2.6%.<sup>6</sup>

In terms of comparisons with the other downturns, R1 was 0.4% in June 1981; two years later it was 1.5%. In April 1990, R1 was 0.6%; two years later it was 1.5%. Similarly, R2 rose from 2.6% to 6.2% from June 1981 to June 1983, and from 3.8% to 6.5% from April 1990 to April 1992. So long-term unemployment in the recent downturn remained well below the levels experienced in earlier downturns.

**Table 8 Categories of individuals not in the labour force**

	October 2008	October 2010	Change		October 2008	October 2010	Change
	'000		'000	%	% distribution		
<b>Total not in the labour force</b>	<b>8,765.2</b>	<b>9,250.0</b>	<b>484.8</b>	<b>5.5</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Able to work, perceived							
labour market attachment	155.1	181.6	26.5	17.1	1.8	2.0	5.5
Discouraged searchers	21.7	29.9	8.2	37.8	0.2	0.3	1.7
Recently laid off and wanted work	49.3	67.7	18.4	37.3	0.6	0.7	3.8
Marginally attached	84.1	84.0	-0.1	-0.1	1.0	0.9	-0.0
Able to work, no perceived							
labour market attachment	7,980.8	8,416.1	435.3	5.5	91.1	91.0	89.8
Students <sup>1</sup>	1,440.3	1,688.9	248.6	17.3	16.4	18.3	51.3
Recently retired <sup>1</sup>	163.0	172.8	9.8	6.0	1.9	1.9	2.0
Other, at least 65 years of age <sup>1</sup>	3,663.8	3,833.1	169.3	4.6	41.8	41.4	34.9
Other, under 65 years of age <sup>1</sup>	2,713.7	2,721.3	7.6	0.3	31.0	29.4	1.6
Permanently unable to work	629.4	652.2	22.8	3.6	7.2	7.1	4.7

<sup>1</sup>. And not included in any of the other definitions.

Note: 'Recent' is defined as within the previous 12 months.

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.



### How the supplementary measures of unemployment are calculated

Statistics Canada produces alternative measures of unemployment in accordance with the concepts and methods suggested by the International Labor Organization (Husmanns et al. 1992). The R1, R2 and R3 rates are available dating back to 1976; the others are available back to 1997. Formally, they are calculated as follows:

$$R1 = [\text{unemployed 52 weeks or more} / (\text{employed} + \text{unemployed})] * 100$$

$$R2 = [\text{unemployed 12 weeks or more} / (\text{employed} + \text{unemployed})] * 100$$

$$R3 = [(\text{unemployed} - (\text{15-year-olds} + \text{passive job searchers} + \text{short-term future starts} + \text{searchers unavailable for work due to personal or family responsibilities}) + \text{full-time students looking for full-time work}) / ((\text{employed} - \text{15-year-olds}) + (\text{unemployed} - (\text{15-year-olds} + \text{passive job searchers} + \text{short-term future starts} + \text{searchers unavailable for work due to personal or family responsibilities})) + \text{full-time students looking for full-time work})] * 100$$

$$R4 = [\text{unemployed} / (\text{employed} + \text{unemployed})] * 100$$

$$R5 = [(\text{unemployed} + \text{discouraged searchers}) / (\text{employed} + \text{unemployed} + \text{discouraged searchers})] * 100$$

$$R6 = [(\text{unemployed} + \text{waiting for recall} + \text{waiting for replies} + \text{long-term future starts}) / (\text{employed} + \text{unemployed} + \text{waiting for recall} + \text{waiting for replies} + \text{long-term future starts})] * 100$$

$$R7 = [(\text{unemployed looking for full-time work} + \text{unemployed looking for part-time work} * \text{average hours of part-time workers at main job} / \text{average hours of full-time workers at main job} + \text{involuntary part-timers} * (1 - \text{average hours of involuntary part-timers at main job} / \text{average hours of full-time workers at main job})) / (\text{employed full-time} + \text{employed part-time} * \text{average hours of part-time workers at main job} / \text{average hours of full-time workers at main job} + \text{unemployed looking for full-time work} + \text{unemployed looking for part-time work} * \text{average hours of part-time workers at main job} / \text{average hours of full-time workers at main job})] * 100$$

$$R8 = [(\text{unemployed} + \text{discouraged searchers} + \text{waiting for recall} + \text{waiting for replies} + \text{long-term future starts} + \text{involuntary part-timers} * (1 - \text{average hours of involuntary part-timers at main job} / \text{average hours of full-time workers at main job})) / (\text{employed} + \text{unemployed} + \text{discouraged searchers} + \text{waiting for recall} + \text{waiting for replies} + \text{long-term future starts})] * 100$$

### Non-participants

Between October 2008 and October 2010, the 'not-in-the-labour-force' population—or non-participants—increased by 6%, or 485,000 people (Table 8). While non-participants include retirees, stay-at-home parents, students, and those not able to work, it also encompasses those with some attachment to the job market. Among these are individuals who are able and ready to work, but not actively searching, for instance because they are waiting to hear from potential employers or don't think work is available. One key question is whether these people contributed to the growing population of non-participants during the downturn.

In Table 8 non-participants are split into three major categories:

- those who were able to work and had some attachment to the labour market, even if they were not currently looking for a job
- those who were able to work but had no perceived attachment to the labour market
- those who were permanently unable to work.

The first category includes

- the discouraged: those who gave up searching since they believed no work was available
- recently laid-off individuals, who expressed a desire to go back to the labour market, were not discouraged, but did not look for work (for example, recently laid-off people who want to take some time off with their families before resuming their searches)
- the 'marginally attached,' including those who are waiting to hear from potential employers and long-term future starts (i.e., they have jobs they expect to start in 5 weeks or more).

All individuals in this category clearly expressed that they would like to stay involved in the job market, or were planning to rejoin the labour force at some point in the future.

Those who had a perceived labour market attachment represented about 2% of non-participants. The discouraged comprised just 0.2% of non-participants in October 2008 and 0.3% in October 2010. So even though their numbers increased (38%), it was from such a small base that their share remained relatively steady. Hence, the discouraged played a very minor role in the increase in non-participants during the downturn.

Rather, the number of non-participants swelled due to a strong increase in the 'able-to-work' population. The number of students grew by 17% over the period (or by almost 250,000), suggesting that some non-participants may have decided to upgrade their skills rather than enter a weak labour market or chose to remain in school due to the slowdown in hiring.<sup>7</sup> In fact, students, who represented just 16% of the not-in-the-labour-force population at the beginning of the downturn, accounted for more than 50% of the increase in non-participants.

The number of seniors also increased as a consequence of the aging population. Between October 2008 and October 2010, the number of non-participants age 65 and over (not classified elsewhere) increased by 169,000 (5%), accounting for about one-third of the increase in the non-participant population. However, seniors typically represent a large portion of the non-participant population. Meanwhile, the number who retired in the previous 12 months increased by about 10,000 (6%), indicating that the downturn did not necessarily trigger a wave of early retirement.

Several alternative unemployment rates can be computed by combining the unemployed with groups outside of the labour force that indicated some attachment to the labour market. The first of these populations is 'discouraged searchers,' who want to work and are available to take work, but who do not look for a job because they believe no jobs are available. Discouraged searchers can be combined with the unemployed to calculate the R5 rate. The marginally attached comprise those who are available for work

and are waiting for employment, but are not currently looking for work. The R6 rate combines the marginally attached (excluding discouraged searchers) with the unemployed. In both cases, the populations are added to the numerator and the denominator to obtain conceptually consistent ratios of individuals without a job (see *How the supplementary measures of unemployment are calculated*).

Since these groups are not particularly large, both rates tend to be slightly higher than the standard unemployment rate (Table 9). In October 2008, R5 was 5.7%, compared to the standard rate of 5.6%. One year later, early in the labour market recovery, it was 7.7%, and by October 2010, it had fallen back to 7.3%. Similarly, R6 was 6.0% in October 2008, 8.1% in October 2009 and 7.6% in October 2010—only slightly higher than the standard unemployment rate.

The detailed non-participant groups could not be compared to previous downturns since information about discouraged and marginally attached workers was collected differently in those years.

### The underemployed

Even if employment recovered all ground lost during the downturn, some of the workforce may remain underemployed. Underemployment can come in two forms: 'visible' underemployment, which happens when someone is employed but does not believe his or her work hours are sufficient; and 'invisible' underemployment, which occurs when skills are not fully used, or when the job occupied is considered

**Table 9 Alternative measures of unemployment: Discouraged and marginally attached**

	October 2008	October 2009	October 2010	Change from October 2008 to October 2010
	'000			
<b>Number</b>				
Standard unemployment rate (R4)	1,024.1	1,387.6	1,331.7	307.6
With discouraged workers (R5)	1,045.9	1,415.7	1,361.7	315.8
With marginally attached workers (R6)	1,108.2	1,479.3	1,415.7	307.5
	%			
<b>Rate</b>				
Standard unemployment rate (R4)	5.6	7.6	7.2	1.6
With discouraged workers (R5)	5.7	7.7	7.3	1.6
With marginally attached workers (R6)	6.0	8.1	7.6	1.6

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

**Table 10 Change in categories of employed population**

	October 2008	October 2010	Change		October 2008	October 2010
	'000	'000	'000	%	% distribution	
<b>Total employed</b>	<b>17,242.5</b>	<b>17,183.5</b>	<b>-59.0</b>	<b>-0.3</b>	<b>100.0</b>	<b>100.0</b>
Full-time workers	13,947.8	13,835.2	-112.6	-0.8	80.9	80.5
Part-time workers	3,294.8	3,348.3	53.5	1.6	19.1	19.5
Involuntary	700.5	840.9	140.4	20.0	4.1	4.9
Going to school	1,146.8	1,073.7	-73.1	-6.4	6.7	6.2
Other voluntary	1,447.6	1,433.8	-13.8	-1.0	8.4	8.3

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

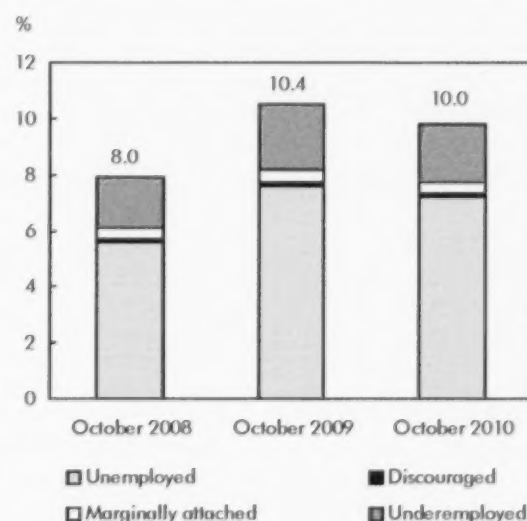
'substandard' because of wages or other job characteristics (Statistics Canada 1999). In the Labour Force Survey, visible underemployment can best be estimated by computing the number of part-time workers who would prefer to be working full time. Such involuntary part-timers represented 4% of the total employed workforce in October 2008 (Table 10).

Although employment regained a good portion of lost ground over the period, full-time employment<sup>8</sup> declined by 112,600 (-0.8%), while the number of part-time workers increased by 53,500 (1.6%). The increase in the number of part-timers was the net result of a 20% increase in the number of involuntary part-time workers (140,400) and a decline of 86,900 among those who worked part time on a voluntary basis (including students). Both full-time and part-time employment declined in the first year and recovered during the second, but full-time employment did not recover as swiftly as part-time employment.

Another alternative measure of unemployment—R7—includes involuntary part-timers, or 'underemployed' workers.<sup>9</sup> The R7 rate differs from the standard unemployment rate in both the numerator and denominator. The R7 rate takes the number of hours of potential labour supply lost due to underemployment into account, since the number of single-job involuntary part-timers are expressed as full-time equivalents. Hence, R7 can be interpreted as a combination of the unemployed and involuntary part-timers expressed in full-time equivalent hours (see *How the supplementary measures of unemployment are calculated*).

Taking the underemployed into account would increase the unemployment rate by a substantial margin. In October 2008, R7 was 7.4% compared to the

standard rate of 5.6%. One year later, R7 was 9.9% (standard rate of 7.6%). By October 2010, the R7 rate had eased down 0.6 percentage points, but was still much higher than it had been at the beginning of the downturn.

**Chart B Unemployment and underutilization rate (R8), October 2008 to October 2010**

Source: Statistics Canada, Labour Force Survey, data not seasonally adjusted.

## An alternative rate for Canada–U.S. comparisons

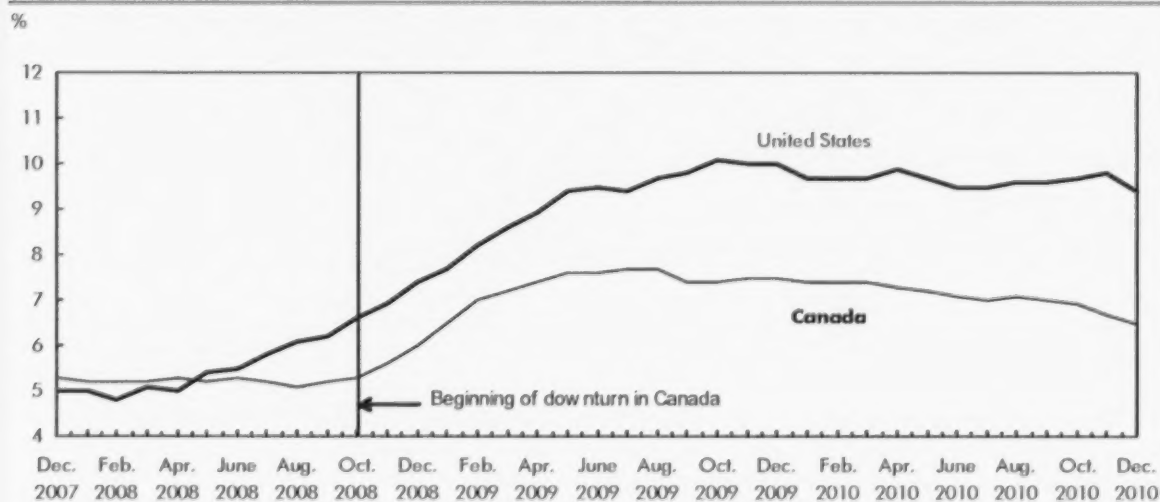
To allow comparisons to be made between Canada and the United States, Statistics Canada also produces a rate defined similarly to the U.S. unemployment rate (called the R3 rate). Like the U.S. official rate, the R3 rate is based on a working-age population of at least 16 years, and takes conceptual differences into account in defining the employed and unemployed populations (Chart C). Contrary to the other alternative rates, it is also produced on a seasonally adjusted basis. Because employment last peaked in December 2007 in the U.S., the figure below provides unemployment rates for the two countries between December 2007 and December 2010.

At the beginning of the downturn in the United States, the unemployment rates were similar in the two countries, at 5%. Although the U.S. rate began to increase earlier, both

rates increased in tandem in the first few months of the Canadian employment downturn. However, the Canadian rate stabilized in the spring of 2009, while it continued increasing until October 2009 in the U.S. At this point, the U.S. unemployment rate exceeded the comparable Canadian rate by more than 2.5 percentage points. Since then, the gap has persisted as the U.S. rate has remained around 10% during most of 2010 (while it has slowly declined in Canada).

During the downturn of the 1990s, the Canadian unemployment rate increased much faster than the U.S. unemployment rate and remained higher for many years afterwards.

**Chart C Unemployment rates for Canada and the U.S. (R3)<sup>1</sup>**



1. Canadian rate adjusted to match U.S. definitions.

Source: Statistics Canada, Labour Force Survey; U.S. Bureau of Labor Statistics, Current Population Survey.

## Comprehensive unemployment and underutilization rate

It is possible to derive a comprehensive rate by combining all the elements that were used to generate R5, R6 and R7 with the unemployed. This rate, called R8, combines the unemployed with discouraged searchers, those waiting for recall or replies, long-term future starts, and a portion of involuntary part-timers.

The R8 rate is often referred to as the overall 'underutilization' rate as it is the highest rate of all the measures, including the official rate.

Chart B shows the evolution of the rate over the period, and also indicates the relative contribution of each group. Adding the marginally attached, the discouraged and the underemployed to the unemployment rate, the comprehensive rate was 8.0% in October 2008, 10.4% in October 2009, and 10.0% in October

2010. Most of the difference from the official unemployment rate was due to the underemployed, as they represented about 20% of the total unemployed and underutilized population. In contrast, discouraged searchers represented only a small fraction of underutilized people, even after the downturn. In all, adding the marginally attached, the discouraged and the underemployed population boosted the unemployed population by about 25%.

Both the standard rate and the R8 rate increased at about the same pace over the period, as the underutilized population increased by 27% (or almost 400,000 people) and the number of unemployed workers increased by 30% (or more than 300,000 people). Hence, the downturn had little effect on the relative contribution of each group to the overall rate.

## Summary

The Canadian labour market recently experienced a significant downturn in which more than 400,000 jobs were lost in the 12 months following October 2008. The labour market, however, recovered quite quickly as employment regained all lost ground by January 2011. In comparison, the labour market took much longer to recover during the recessions of the early 1980s and early 1990s.

As might be expected in an economic downturn, the number of individuals without a job increased significantly. Between October 2008 and October 2010, unemployment increased by 341,000, and the number of non-participants increased by 458,000 (in seasonally adjusted figures).

Unemployment changes were not just due to layoffs. Between October 2008 and October 2010, the number of permanent layoffs increased by about 30%, but other categories of unemployed workers also increased—particularly new entrants and re-entrants (33%) and those who were unemployed for more than one year (74%). In all, 28% of the increase in the unemployed population was due to permanent layoffs and almost 50% was due to an increase in the number of new and re-entrants. This differed from earlier downturns, when permanent layoffs accounted for a larger portion the total unemployment increase.

From October 2008 to October 2010, the increase in non-participants was mainly driven by increases in the number of students and, to a lesser degree, in the

number of seniors. The number of individuals marginally attached to the labour market (including discouraged searchers) also increased by about 27,000 (17%), but contributed little to the overall increase since they represent such a small portion of the non-participant population.

In contrast, the number of individuals working part time on an involuntary basis increased by about 140,000 over the period (20%). Even though they are counted as employed, this population is considered underemployed since they would like to work more hours.

Some of these groups can be used to generate alternative unemployment rates. Such alternative rates can be produced by focusing on those who have been without a job for a long time; by combining unemployed individuals with discouraged searchers and the marginally attached, or by adding involuntary part-timers (expressed as full-time equivalents). The most comprehensive of these rates, R8, is called the unemployment and underutilization rate and combines the unemployed, involuntary part-timers, discouraged searchers, and the marginally attached. Using this alternative definition would not have changed the pace of the increase in unemployment figures, but would have affected the level since the underutilization rate is approximately 25% higher than the unemployment rate.

## Perspectives

### ■ Notes

1. 'Future starts' refers to persons who did not have a job during the survey reference week and did not search for work within the previous four weeks, but were available to work and had a job to start within the next four weeks.
2. Since the Labour Force Survey does not interview persons under the age of 15, new entrants can also be individuals who just turned 15, are not students, and are looking for work.
3. Persons on temporary layoff are employees who did not work during the reference week because they had been temporarily released by their employers due to business conditions (not enough work, drop in orders or sales, retooling, etc.). They must have a definite return-to-work date or an indication from the employer that they will be recalled in the future, and they must be available for work during the reference week.



4. The Labour Force Survey does not ask the reason for job loss for those who have been unemployed for more than one year.
5. The duration of unemployment estimates indicates incomplete spells of unemployment rather than completed spells because the data are based on currently unemployed individuals. See Corak and Heisz (1995) for an explanation of possible biases associated with incomplete unemployment spells.
6. While the increase in the R1 rate is notable, unlike the standard unemployment rate, the R1 rate typically lags economic cycles. In other words, R1 declines more slowly during periods of economic growth and increases more slowly during economic downturns. In comparison, the R2 rate tends to be much closer to economic cycles.
7. Between October 2008 and October 2010, the proportion of the total population age 15 to 29 who were either part-time or full-time students increased from 44% to 46%.
8. Full-time employment is defined as working at least 30 hours per week.
9. There are no comparable data with previous downturns as the concept of involuntary part-time workers changed in 1997.

## References

- Blanchard, Olivier Jean and Peter Diamond. 1994. "Ranking, unemployment duration, and wages." *The Review of Economic Studies*. Vol. 61, no.3. July. p. 417-434.  
<http://www.jstor.org/stable/pdfplus/2297897.pdf?acceptTC=true> (accessed January 11, 2011).
- Clark, Andrew E. 2006. *A Note on Unhappiness and Unemployment Duration*. IZA Discussion Paper No. 2406. Bonn, Germany. Institute for the Study of Labor. 28 p.  
<http://ftp.iza.org/dp2406.pdf> (accessed January 11, 2011).
- Clark, Andrew E. and Andrew J. Oswald. 1994. "Unhappiness and unemployment." *The Economic Journal*. Vol. 104, no. 424. May. p. 648-659.  
<http://www.jstor.org/stable/pdfplus/2234639.pdf> (accessed January 11, 2011).
- Corak, Miles and Andrew Heisz. 1995. *The Duration of Unemployment: A User Guide*. Statistics Canada Catalogue no. 11F0019MPE – No. 84. Analytical Studies Branch Research Paper Series. Ottawa. 13 p.  
<http://www.statcan.gc.ca/pub/11f0019m/11f0019m1995084-eng.pdf> (accessed January 10, 2011).
- Corak, Miles. 1993. "The duration of unemployment during boom and bust." *Canadian Economic Observer*. Vol. 6, no. 9. September. Statistics Canada Catalogue no. 11-010-XPB. p. 4.1-4.20.
- Devereaux, Mary Sue. 1992. "Alternative measures of unemployment." *Perspectives on Labour and Income*. Vol. 4, no. 4. Winter. Statistics Canada Catalogue no. 75-001-X. 16 p.  
<http://www.statcan.gc.ca/studies-etudes/75-001/archive/e-pdf/140-eng.pdf> (accessed January 10, 2011).
- Hipple, Steven F. 2010. "The labor market in 2009: Recession drags on." *Monthly Labor Review*. March. United States Department of Labor. Bureau of Labor Statistics. p. 3- 22.  
<http://www.bls.gov/opub/mlr/2010/03/art1full.pdf> (accessed January 11, 2011).
- Husmanns, Ralf, Farhad Mehran and Vijaya Vermã. 1992. *Surveys of Economically Active Population, Employment, Unemployment and Underemployment: An ILO Manual on Concepts and Methods*. International Labour Office. Geneva. 411 p.
- Jackman, Richard and Richard Layard. 1991. "Does long-term unemployment reduce a person's chance of a job? A time-series test." *Economica*. Vol. 58, no. 229. February. p. 93-106.  
<http://www.jstor.org/stable/pdfplus/2554977.pdf> (accessed January 11, 2011).
- LaRochelle-Côté, Sébastien and Jason Gilmore. 2009. "Canada's employment downturn." *Perspectives on Labour and Income*. Vol. 10, no. 12. December. Statistics Canada Catalogue no. 75-001-X. p. 5-12.  
<http://www.statcan.gc.ca/pub/75-001-x/2009112/pdf/11048-eng.pdf> (accessed January 10, 2011).
- Micklewright, John and Gyula Nagy. 1999. "Living standards and incentives in transition: The implications of UI exhaustion in Hungary." *Journal of Public Economics*. Vol. 73, no. 3. September. p. 297-319.  
[http://www.sciencedirect.com/science?\\_ob=MIImg&\\_imagekey=B6V76-40V4THC-1-D&\\_cdi=5834&\\_user=1516053&\\_pii=S0047272799000158&\\_origin=na&\\_coverDate=09%2F30%2F1999&\\_sk=999269996&\\_view=c&wchp=dGLzVthzSkzV&md5=b3228ad1b1e12cef43c400bc8d36eff8cic=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIImg&_imagekey=B6V76-40V4THC-1-D&_cdi=5834&_user=1516053&_pii=S0047272799000158&_origin=na&_coverDate=09%2F30%2F1999&_sk=999269996&_view=c&wchp=dGLzVthzSkzV&md5=b3228ad1b1e12cef43c400bc8d36eff8cic=/sdarticle.pdf) (accessed January 28, 2011).
- Statistics Canada. 1999. *Supplementary Measures of Unemployment*. Labour Force Update. Vol. 3, no. 3. Statistics Canada Catalogue no. 71-005-XPB. Ottawa. p. 32-39.